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N. GOODSELL, EDITOR.

COUNTY AGRICULTURAL SOCIETIES.

As it has been considered expedient by the delegates from the different counties of the state, who met at Albany to form a State Agricultural Society, so also, they have recommended the formation of County Societies, in each county of the state. That the formation of such Societies will have a happy effect upon the Agriculture of the state, we have no doubt; and we hope those gentlemen who have been appointed by the State Society as an Executive Committee, will feel the importance of forming such Societies as soon as may be, as the season is fast approaching for the planting of seeds, &c.; and as we are confident that one of the first things in point of importance which will be presented for their consideration, will be the cultivation of the mulberry, we hope that the formation of such societies will not be neglected or put off until the season for planting mulberry seed is past, as thereby one year would be lost to this object. Eggs of the silk worms should also be distributed through the several counties in small quantities, in order that a ready supply may be furnished for the next year. If mulberry leaves cannot be got, a few worms may be fed with lettuce leaves, which will perfect them sufficiently for propagating their species, if not for silk. The second year from seed, young mulberry trees will furnish food in considerable abundance for feeding worms. We understand it is the intention of the State Society to distribute mulberry seed in each county where societies are formed; if so, let us be up and doing. We may expect much valuable matter from Judge Spencer on this subject, as he paid much attention to it while he was at Washington. Persons who are not familiar with all the *minutiæ* need not fear—they will have all the necessary information in season, or as soon as trees can be raised for feeding the worms.

DESTROYING INSECTS.

Nature has provided many of the insect tribes with the faculties of withstanding our most severe winters, and yet reviving with the first warmth of summer. Some dive deep in the earth, thereby escaping the effects of frost, while others, more averse to dampness, secrete themselves in the clefts of the bark of trees, or encase themselves in gummy coverings, from which they emerge and commence their works of destruction with the first dawn of vegetation. By examining the bark and buds of fruit trees at this season, thousands of these little destructive insects may be found enveloped in cases which seem to defy the inclemency of the season, but which may be destroyed by artificial means more readily than after they are thawn into life. Washing trees with strong soap-suds, or rubbing them over with soft soap, is one of the most effectual ways of destroying such insects as remain upon the trees during the winter; at the same time it has a good effect upon the trees, as by being washed to the ground by the rains it answers an excellent purpose as manure. Some prefer mixing lime with soft soap, and applying it with a brush in the form of a white-wash, which remains long upon the tree, and is an excellent application; and where the color is objected to, a small quantity of lamp-black may be added, which will give it a gray appearance. We strongly urge our horticulturists to make trial of either the above applications—they will find it much to their advantage. During the above operation, the small limbs of apple trees should be looked over, and the eggs of the *bag worms* taken off. They are readily distinguished as a projecting ring round small limbs, about one inch long, full of small cells like a honey comb, each cell containing a worm in its embryo state; these also hatch out as soon as the leaves are large enough for them to feed upon, but can be destroyed at this season with certainty and very little trouble. Where trees are washed with soap or lime in the spring, insects that pass the winter in the earth, will not climb them as readily as those which have not been washed, which alone should be a sufficient inducement for every good farmer, who has any taste for fruit, to make the application before his enemies can escape by flight.

EARLY PLOUGHING.

In the northern part of New-York, Ohio and Michigan, the transition from winter to summer, or from the time that the frost leaves the ground until vegetation is in vigorous operation, is very short, compared with many other countries, and of course the farmer's spring work is more pressing than in more southern latitudes. As ploughing is one of the heavy operations in agriculture, and a certain proportion of it must necessarily be done upon lands before the crops can be advantageously put in, we in all cases, where circumstances will permit, recommend doing as much of it as possible in the fall. But with this, as with many other things useful in agriculture, there are certain prejudices against it, most of which are founded in ignorance, which offer an excuse for lazy farmers to put off their preparation for crops until spring, when they avail themselves of a more rational one, viz: the faintness of their teams.—Again, many object to early spring ploughing, alleging that grounds that are ploughed early, become hard and full of lumps; and that ground should never be ploughed until it becomes dry. No time should be lost in the spring with regard to ploughing: as soon as the frost is out of the ground sufficiently, let this operation commence. It is true, that when grounds are wet they are heavier, but they are softer, and unless the soil is a stiff clay, it will not be injured by early ploughing. There are some spring crops that are better for early sowing, and it is better to sow them early, although the ground may be rather damp, than to put it off until it is dry. Oats, Barley, Spring Rye and Peas, are of this description, and should always be sown before the season for planting Indian Corn. It is true, that oats sown after planting, frequently produce the greatest growth of straw, but the grain will not be as heavy, and where they are to be succeeded by wheat, there is less time after harvest to prepare the ground. Peas sown early, are more apt to be buggy to be sure, but as they are mostly fed to hogs, it is of less consequence, they being raised rather as a preparatory crop than for family use. There is one important advantage in early ploughing; it destroys many insects which are in the ground, hence farmers often remark, "that if they can plough their flax ground soon enough to have it freeze sufficiently hard to bear a horse, their flax will not be injured by worms." Where grass grounds are to be ploughed for spring or summer crops, it will be found beneficial to harrow them thoroughly both ways, which may sometimes be done before the frost is sufficiently out for ploughing.

WINTER KILLED.

This is a term made use of to denote the destruction of plants by the effects of winter, whether they are not sufficiently hardy to withstand the severity of the climate, or whether they are thrown out of the ground by the mechanical action of the frost and are dryed up, or covered so deep and long with snow that they mould or rot, the same term is applied—"they are winter killed." So far as our observations have extended, we find that by far the greatest proportion of agricultural plants are killed by the mechanical operation of the frost in the spring, such as Wheat, Rye, Clover and most kinds of grasses, while they are young. It frequently happens in this latitude that many plants which have remained perfectly green and fresh under the snow, are destroyed by the frosts after the snow has disappeared. To prevent this with field crops, as young grasses, &c. we would recommend the use of the roller, which is an instrument altogether undervalued by many of our good farmers. Perhaps the reasons why this instrument has not been more generally introduced, is because it cannot be used to so great advantage on new lands where there are stumps and roots, but as soon as these disappear, the roller should be considered as important an instrument as the plough or harrow, and should always be an accompanyment. Many grass lands are materially benefited by being rolled as soon as the frost is out of the ground, while they are yet wet and soft. By this operation, the surface is made more even & smooth than it would otherwise be, and the roots of grasses are more closely pressed in the earth, which facilitates their early growth. In some cases, when the grounds have been long in grass, the use of the harrow before the roller will be found very advantageous. Many garden plants require attention as soon as the snow leaves them. Lettuce plants which were sown in the fall, generelly appear first when the snow first leaves them, but many of them perish afterwards by night frosts; such plants should be covered up with straw or mats. Strawberry plants which were set in the fall, are often thrown out of ground in the spring. The ground about such plants should be trodden down as soon as thawed, and if some straw or litter is thrown over them, the better. By a little attention to protecting plants in the spring, cabbage plants may be sown in the fall, and allowed to stand out, and will be found equally as

good as those raised in a hot bed. Other plants may be preserved from "winter killing," such as tender shrubs, by wrapping them up in straw, whereby they will be prevented from so frequently freezing and thawing as they would otherwise do. We have seen a thin shelled Almond this spring, which stood in a shaded situation, which was perfectly fresh, while some others in a sunny situation, in the same garden, were "winter killed," from which it might be inferred that it was not the severe cold which caused their death, but the too frequent freezing and thawing. We have noticed also that European grape vines, which lay upon the ground without being coverd with any thing but snow, were in better condition than those which were left upon their trellises.

FOR THE GENESEE FARMER.

THE MULBERRY TREE, SILK WORMS, &c.

Translated from the French for the GENESEE FARMER, from a work entitled *The Practical Course of Agriculture.*

(Concluded from page 86.)

The moutee of Silk Worms, or period when they spin their cocoons.—During the last days of the *briffe*, (greediness,) the worm is from 36 to 42 lines in length—its skin is entirely filled—its great hunger has passed—its color becomes clear and transparent—it voids its excrements—it diminishes in size; and is what is called ripe or turned. Then it crawls about from one side to the other; if it is not watched it climbs up the sides of the frames, and tries to spin its cocoon in the highest place it can reach, or in the corners of the walls.

When the worms have arrived at that point of maturity that they will no longer eat, no time should be lost in preparing them lodges proper for them to spin their cocoons upon. Furze, broome, branches of lavender, or any kind of shrub, is generally used; but whatever may be the kind of branches, they should be well dried, and stripped of their leaves.

The best manner of disposing the branches or twigs of plants for the worms, is to form with them a continued arch along the shelves. They may be done up in little bundles, which should be placed near one another, by propping the foot on the lower shelf, and bending the top in the form of a semicircle against the shelf above it, as if it were intended to support it: the branches which thus form the arch should be placed at proper distances so that the worms can easily pass between them.

It is very important to put only those worms under these arches which are ready to spin their cocoons; otherwise it would be necessary to feed them; they would escape on all sides without fixing themselves, and would cause much trouble. Nevertheless, it is necessary to prevent their escaping to spin their cocoons, because in doing so they would lose much silk in seeking out a place to fix themselves.

Before changing itself into the chrysalis, the worm choses the place convenient for spinning its cocoon: it commences by fixing its point d'appui, which are short threads of silk drawn from its body, through its *filiere;* the second day of its work it begins to give its cocoon its proper form, multiplies the threads, and shuts itself in; the third day it is entirely concealed; the following days it continues to work within, always with the same piece of silk, and without breaking it; and when it has given its domicil the utmost perfection it is susceptible of, it changes into a chrysalis. The piece of silk alone which forms a cocoon, is estimated at more than a league in length.

The cocoons should not be taken from the lodges or branches before four or five days after the worm commenced its work, for it requires that space of time to complete it. In gathering the cocoons, the *bourre*,* or first bave, should be separated from it, and the excrements which may be stuck to the threads of silk, should be also separated.

It would be of advantage to reel the cocoons as soon as they have been taken from the branches; as the silk would be fairer and of better lustre; but this is not practicable on account of the difficulty in procuring a sufficient number of reelers. It is therefore necessary to preserve the cocoons, and to destroy the worms contained in them, because after twenty days they pierce them in order to get out, and the silk would be lost.

The most common method of destroying the chrysalis, is to stifle the cocoons, either by putting them into an oven, in baskets covered with linen cloths, or by throwing them into boiling water; this latter method is equally effectual in destroying the chrysalis, without injuring the silk so much as the heat of the oven, which dries up the silk too much, and above all, the gummy part which gives it its lustre. It is therefore better to put the cocoons into boiling water for a few minutes, and on withdrawing them, to dry them on very clean hurdles.

Before reeling the cocoons, or destroying the chrysalis of those which are to be saved, a sufficient number should be reserved for seed for the following year. In making choice of them, always select out those from the shelves where the worms have been the most forward to spin their cocoons: this promptitude to cocone, is a proof that they have been in good health during the whole course of their bringing up, which is a presumption in favor of the future generation which will spring from their seed.

After having made choice of a sufficient number, they may be strung up in the form of a chaplet, taking care not to pierce through the cocoons, and they may be suspended against the side of the room until the millers come out. After eighteen or twenty days, they should be examined every morning; this is the time when the millers leave their cocoons: as fast as they come out, they should be placed on a table that they may couple; this table should be covered with a light thin cloth or stuff, in order that they may cling to it (crampouner.)

As soon as the millers begin to come out, the chaplets should be looked over every morning, and the millers taken from them, and placed on the table; if any are found which are already coupled, they should be taken up lightly by the wings, and placed gently on the table. The males come out sooner than the females, and a greater number is found on the same morning: the male may be distinguished from the female by its slender shape, its vivacity, the continual fluttering of its wings; the female moves more slowly, and its belly is full of eggs, is shorter and thicker.

In order to couple the millers, the female should be placed on the piece of stuff which covers the table, and the male put by the side of it: always following the same line, by placing the female by the side of the male; and when that line is finished, begin another, until all the millers of that day are coupled. As to the supernumerary males, they should be placed on an other table until the next day.

The time of coupling should last only nine or ten hours; then they should be carefully separated, the female should be placed on a piece of stuff hung against the wall; it will lay its eggs there during the night: the bottom of this stuff should be turned up in such a manner as to catch any seed which might be lost were not this precaution taken.

If the coupling should last too long, the female would die without having laid her eggs; if they are separated before eight or ten hours, the laying will be more difficult, and less abundant: a female who has been coupled for nine or ten hours, lays at least five hundred eggs with facility. It is proper to put the millers for coupling in a place which is rather cool than too hot; too great heat is very injurious to the laying.

When all the females have done laying, they should be thrown to the chickens, who are very fond of them. The pieces of stuff upon which they had laid, should be left attached to the wall during fifteen days, if the place is not too hot: otherwise, after remaining a greater or less length of time, the seed would be in danger of hatching. At the end of fifteen days, the pieces of stuff should be taken down, taking care that they be free from dust; then spread some old linen over them, and roll both together; put them into bags, and suspend them to the ceiling.

It is very important to preserve the seed from the cold during the winter, and to keep it at an equal temperature, free from dampness. When the time for hatching comes on, the seed should be detached from the stuff, that it may be hatched according to the method of which we have already spoken. There can be reared two crops of silk worms a year; but the second is never so valuable as the first.

One ounce of seed contains forty-two thousand, forty thousand of which will ordinarily hatch when the means employed for this purpose are well understood, and the seed is of a good quality: which may be esteemed a successful hatching, as forty thousand silk worms produce twenty thousand cocoons. Two hundred and fifty cocoons, yellow and white, one with another, weigh ordinarily a pound; thus one ounce of seed produces eighty pounds* of cocoons, if the crop is fortunate, and the best cares are crossed by no accident. If the cocoons are of a good quality, ten or twelve pounds at the utmost are sufficient to produce a pound of silk.

The Diseases of Silk Worms, &c.—Silk worms are subject to many diseases; that which is called the *rouge*, begins the moment the worm comes out of the shell: sometimes it remains in a languishing state, until the time for spinning its cocoon, which is generally inferior; but it never changes into a chrysalis. This disease proceeds from too great heat which the eggs are exposed

* *Bourre or bave,* is the gummy process of the worms on first commencing their work.

* French weight, equal to 90 lbs. avoirdupois.

to during their incubation, or from the sudden transition from heat to cold. When the greater part of the worms are attacked with this disease, the best way is to throw them away and commence anew.

Other diseases, often mortal, are occasioned by the impurity of the air of the spinning place, when the leaves on which the worms are fed are too much heaped, and the heat of the atmosphere is so great as to cause them to ferment. Diseases may be prevented by keeping a proper temperature, and by means of ventilators to purify the air. The floors may be watered often during the day; the water absorbs the superabundance of atmospheric electricity; these precautions are very beneficial during stormy weather.

The inclemency of the season has no influence on the silk worm, because in the cocoonry, by the aid of thermometers, a proper degree of heat may be given it. It therefore only remains to examine whether this artificial heat is injurious to the quality of the silk, and above all, if the severity of the climate may be hurtful to the mulberry.

To be convinced of these facts, it is only necessary to turn over in the mind the different countries of the earth which produce silk. The Nankin silks, or those received under that denomination, are the finest and best received from China; they are raised in the seven northern provinces of that vast empire, where the cold is so severe that the inhabitants are always under the necessity of warming their cocoonries with cow dung dried in the sun The most inferior silks of China, are those of Canton, situated near the tropic: those collected near the equator, are of the least value. Those of Bengal are very inferior to those of China or Europe.

The mulberry tree has the particular advantage of being able to acclimate itself in all countries, where chance happens to place it; and the colder the climate the finer will the silk be which is produced from it.

The greatest obstacle to the culture of the silk worm in cold countries, is, that mulberry leaves cannot be produced early enough. But experience shows that all sorts of trees, and particularly the mulberry, begin to shoot at least twelve or fifteen days sooner when they are lopped than when they grow naturally.

What hinders the cultivation of the mulberry as a dwarf, and even as a bush, for far from being prejudicial to the worms, branches might be given them with the leaves; which even renders the silk stronger.

Mulberries may also be planted along walls with a southern or eastern aspect, in order that they may produce leaves early, and be in a state to feed those worms which have been first hatched; or still to come in for feeding them when the spring frosts have injured the other trees. For this reason, mulberries in mountaineous countries should be placed in different exposures.

The leaves being the most useful part of the mulberry, it is proper to prune the branches every year, in order that the wood may be renewed, and the leaf of a better quality. The Piedmontese are in the habit of dividing their plantations into several copses, and to lop one of them every year: this practice renders the leaf larger and easier to gather.

FOR THE GENESEE FARMER.

LEISURE MOMENTS.—No. III.

"For every single act of progression a short time is sufficient; and it is only necescary, that, whenever that time is afforded, it be well employed."—*Dr. Johnson.*

For want of a well directed education many of our most talented young men have left the fields and groves where their boyhood was spent in rustic simplicity, and for which they have often sighed in vain, in after years; and engaged in pursuits which offered free scope to the energies of the mind and which called forth all the force and vigor of intellect.

Agriculture has been presented to them in so forbidding a form that they have viewed it as an act which required only the manual labor of blockheads, and as an occupation illy calculated for a man of learning. I do not say this has been universally, but too frequently the case; and all this for want of Agricultural Societies and agricultural Schools—schools where farmers could place their sons and have them return farmers, in theory and practice—scientific, well educated farmers—for want of some favorable opportunity for young men of talent to exert their active minds in the cause of agriculture. But these evils are daily lessening, and it is an object of the highest importance not only that our most enterprizing young men should be engaged in husbandry, but that every farmer should have an education comporting with his vocation, and altho' I am aware that state and county agricultural schools would do much to facilitate so desirable an object, and are almost absolutely necessary effectually to accomplish it; yet I think I may safely assert, that with proper exertions, there are very few farmers' sons in this state but may obtain the necessary education to make them accomplished farmers.

The question naturally arises, how can this be done? To which I would answer, let us occupy our leisure moments in study. There are few men who do not throw away time enough, which if properly employed, would afford them a good education.

In this day and age, no one who is blessed with health and a common share of that indispensable article, good sense, can have an excuse for ignorance, and that hyena monster with her numerous retinue scattering desolation over the earth, ought not to find a resting place in our land.

Many are deterred from doing little because they cannot do much: but remember that he who learns something every day, will at the end of the year have accumulated no small stock of information. The man that should compare one blow f the pick ax or drill to the labor necessary to construct the Erie Canal, would indeed shrink back in despair, but the greatest objects are attained by little and little, and a steady perseverance is able to overcome the most formidable obstacles.

Time is dealt out to us in moments as if to make us sensible of its great value, and he who will not occupy the time given him cannot reasonably ask for more.

If every young farmer would read regularly and attentively some agricultural paper; if he would invest the money which he spends at balls and other places of useless amusement in books; if he would contract a habit of spending every leisure moment in reading or useful observations, the most happy results might be reasonaby anticipated.

There are now so many well written, cheap and familiar works on natural science that it needs but application, industry and discrimination to form the Botanist, Chemist, and Naturalist, or at least to obtain the necessary information requisite for the scientific farmer. YTUS.

FOR THE GENESEE FARMER.

ANCHOR ICE.

An extract in the 9th No. of the Farmer, speaks of this ice, making at the bottom of streams, as a singular novelty. Nothing is more common in New England. I once knew a dangerous freshet of a few hours continuance from a mill pond, which was caused by the making of ice at the bottom of the water, near the brink of the dam, where the water was about a foot deep. As the ice grew in thickness, it rose higher than the dam, and threw back the water for several miles, and continued to freeze thicker, and set the water back for several days. At length the ice gave way, and a prodigious flood was the consequence. There is no mistake in this. I saw the whole operation from beginning to end. Can no one explain how anchor ice is formed? It certainly begins to make at the bottom, and in swift running water. I have often put the question to men of science, and have not yet received an explanation. ULMUS.

FOR THE GENESEE FARMER.

MADDER.

Having noticed in the Farmer some observations concerning Madder, I would inform you that four years this spring, I procured a few plants which I set in my garden, and I find it easy of cultivation and perfectly hardy. It starts early in spring, and the late frosts have never but slightly injured it. I have now plants sufficient for one acre, which I will exchange for choice fruit trees and shrubbery. Yours, respectfully,

FAYETTE LAPHAM.

Perrinton, March 20, 1832.

PARSNIPS.

Parsnips should be taken out of the ground in the spring as early as the frost will admit, as they vegetate very early; and in proportion as tops grow, the roots become stringy. They keep well when pulled and covered with dry sand.

☞We shall commence our Floral Calendar with the next month; and invite our readers who are fond of comparing climates, to keep such memorandums as will enable them to arrive at correct conclusions as to the variation of climate in different sections of our country. Such memorandums are valuable to the farmer, as from them he is enabled to make more correct calculations, than when he trusts altogether to memory.

BOG MEADOWS.

When you have an unproductive bog meadow, that will only produce coarse wild grasses, spread on a thin layer of loam and chip manure; let the weeds spring up; cover them up in the same manner, and at the proper time put in herdsgrass, and you will have a good yield. In mowing, do not pare your meadows too close; the heat of the sun is detrimental in such cases. *S.

FOR THE GENESEE FARMER.

ASPARAGUS BEDS.

Every spring I am asked, if I have any asparagus roots to spare? "No," is my constant answer. "But you have a large bed, and why not spare some roots?" "Because I do not choose to cut my bed to pieces." "Well, but I want a bed; my folks are very fond of it, and I have got to go and dig up a ditch three feet deep, and fill it up with stones and horse manure, and they say it will never come to maturity from the seed."—"Who says so?" "Why, I do 'nt know exactly; but I have always heard so." "You have heard too, I suppose, that if you first see the new moon over the left shoulder, you will have bad luck through the month, hav 'nt you? Now I will tell you how to have an asparagus bed. Select the spot in your garden where you want it to grow. It is best on the south side of a fence or building. Manure it well with stable dung, ashes, lime, or any warm, strong manure. Then dig it up deep as you would dig a bed for beets or parsnips. Knock the dirt to pieces with your spade or rake, and make it fine. Let the bed be five feet wide, and as long as you please. Take your rake handle and draw four straight lines lengthwise with the bed, one foot apart; then draw parallel lines across it a foot apart also, which will leave your bed marked out into squares of a foot each. Now get a paper of seeds at the store which will cost you sixpence, and———" "But how shall I know whether it is the big or the little kind? Now I want the great kind.—They say there is asparagus grows in the old garden at Fort Slusher near the falls of Niagara, as large as your thumb. That 's the sort I want."

"Very well; you will have that sort when your bed is old enough, if you take good care of it. But hear me through. Get your paper of seed. At the intersection of each line drop two or three seeds, and cover them an inch deep with earth. Do this in the month of May. In two weeks your asparagus will be up. Now all you have to do is to keep it clear from weeds and grass. In the fall, if any places are missing, take a crown and roots out of some of the thickest of the others and supply them. Cover up the bed with stable litter six inches thick, and in the spring rake it off and stir up the ground lightly. Mind and keep your bed clean this year too, and for ever after, and cover it with litter next fall, as before; and then, the next spring, just two years after planting, you can cut as much fine fresh asparagus as your family will want."

"La! is that all? I always thought as how it was a great deal more trouble than that. I want to know if that is the way you made your bed?" "Why, to be sure it is; and I never begged a root of asparagus in my life." "Well, well, I will try it as soon as the ground opens"—and away he goes. "But, I say friend, do you take the Genesee Farmer?" "No." "Hum, I thought so."

ULMUS.

FOR THE GENESEE FARMER.

GARDENS.

Do not spade up your garden ground for beds until the ground is warm; then let it lie a day or two before you spade again: when the ground smokes in the morning put in seeds; you cannot much mistake.

*S.

FOR THE GENESEE FARMER.

JERUSALEM ARTICHOKE. (Common Artichoke.)

MR. GOODSELL—I have often thought that this root might be rendered, under proper management, very beneficial and profitable to our farmers generally. Most of our farms contain gullies and other broken grounds inaccessible to the plough, but frequently abounding with small spots of rich alluvial soil, which if planted with artichokes would in a few years afford an excellent winter range for store hogs. This root requires little or no attention after the first planting, and will in a few years spread and fill the ground to overflowing with an excellent winter food for lean hogs; and when once well rooted in a loose and rich soil, can rarely if ever be eradicated.—They should be allowed about three years to spread and grow before the hogs are turned upon them, after which, the rooting of the hogs will only tend to make them grow and spread faster, as the smallest piece left in the ground will grow.—Such is the result of my experience and observation on this subject. Yours, &c.

R. M. WILLIAMS.

PEAS.

MR. GOODSELL—I have found the pea a good summer food for store hogs, and if managed as herein after directed, will be found profitable to our farmers generally. About the first of April plough and prepare about one acre of ground, more or less, according to the number of hogs intended to be kept. Sow on this acre about four bushels of common field peas, then about ten days after prepare and sow another acre, and so proceed at intervals of ten days each during the month of April; when those that were first sown are in full bloom, and beginning to form pods, the hogs may be turned upon them; and so of the after sowings when they come to a similar state, in succession. The hogs will be found to grow and thrive finely. Such is the result of my experience on this subject. Yours, etc.

R. M. WILLIAMS.

BENE PLANT.

MR. GOODSELL—The seeds of this plant seem to have been introduced into our southern states by the negroes from Africa, and is cultivated by them in almost every patch, or negro garden, to a limited extent; and is considered by them as a specific in all cases of dysentery, diarrhea and cholera. For this purpose, about two quarts of cold water are put into a vessel, two green leaves are then taken from the bene plant, and the water kept stirring with them for about five minutes, by which time the water will have assumed nearly the consistence of starch, perfectly colorless and tasteless. Of this water the patient is made to drink freely and often, with the most beneficial effects in those complaints. In this climate, the seed should be sown about the first of April in a hot-bed, and may be transplanted into the open air about the first of May, in rows, and about twelve or fifteen inches apart. As it is only cultivated as a medical plant, a few seeds will probably be enough for any one family. Whether it will preserve its medical qualities after it is dried, I am not informed. Yours, &c.

R. M. WILLIAMS.

Middlesex, 24th Feb'y, 1832.

FOR THE GENESEE FARMER.

ICE AT THE BOTTOM OF STREAMS.

MR. GOODSELL—The following observations are perhaps on a subject foreign to the immediate objects of the Farmer, but as you copied an article on the same subject from one of the N. York papers, perhaps some of your readers may have their curiosity sufficiently excited to pursue the subject a little further.

The querist in the Phil. Am. Adv. might as well ask whether *lead* would ever float on the surface of water, as whether *ice* ever disappears by sinking. Every day's experience answers both questions in the negative, unless artificial means are used to produce the result. How then can be accounted for the ice sometimes observed at the bottom of streams? To answer this question, let us examine its appearance, and the circumstances under which it is most readily formed. So far as my information extends, it has never been seen except in quick running streams, generally with clear gravel bottoms. It does not occur in flat cakes like ice found on the surface of water but is generally in the form of radiated tufts, frequently presenting regular needle shaped crystals. It is well known that water, after it is cooled to the temperature of ice, parts with a large quantity of latent caloric on congealing. In the formation of ice on still bodies of water, the surface first becomes cooled, and a thin film of ice is formed; the caloric given out as the water congeals, is communicated to the water beneath, and has a tendency to keep its temperature above the freezing point. Consequently, all the ice that can be found under such circumstances, is on the surface of the water, and as it has less specific gravity than water, it must remain there until it is again dissolved into its parent element. But in rapid streams the whole of the water by constantly changing positions, becomes cooled alike, and no ice is found till all the water, and the bed of the stream, is reduced to the freezing point. Under these circumstances, it is evident that one portion of the water is as well prepared as another for congelation; and as all liquids undergoing crystalization have a stronger tendency to deposit crystals at those points where nucleus are present than at any other, we might reasonably presume that minute particles of ice would attach themselves to substances at the bottom and sides of the stream, in preference to forming on the surface, where no nucleus is presented. Other particles would form on to them, and so on, till the congenial warmth of the sun should dissolve the icy chain which binds it down in its apparently unnatural position.

G. E.

FOR THE GENESEE FARMER.

CEDAR HEDGES,

As ornamental divisions, in a neat farm, are much admired. I would recommend those who have moist farms to attempt the swamp cedar for hedges. Gather the cedar berries in December, rub off the resinous matter, and put them into unslaked ashes; and after two weeks put them in rows like peas, if the ground should open, if not, as soon as the ground is open; if well nursed, they can be transplanted in two years, and into a rich light soil formed for the purpose, and in about seven years, by suitable trimming, they will make a most beautiful hedge: evergreen, like the bays which flourish round the brows of the heor-

FOR THE GENESEE FARMER.

Remarks on the manner of setting Mulberry trees; catechetical illustrations, &c.

SIR—It appears that many of our citizens are, in good earnest, turning their attention to the cultivation of mulberry trees, with a view to the growth and manufacture of silk. Although much has been published in the agricultural journals, and otherwise, on these subjects, yet nothing has appeared to my knowledge, giving satisfactory information as to the best manner of setting mulberry trees. Information on this subject is much needed; and great inquisitiveness prevails in relation to it. Little as it can be supposed by my fellow citizens that I know about these subjects, interrogations of the following import, are addressed to me very frequently, almost daily. In what manner should mulberry trees be set? Is it best to set them in the orchard form, as apple trees are set? If so, at what distances should they stand from each other? Or, will it be better to cultivate them in the form of hedges? If so, how are the hedges to be constructed?

Having learned nothing relative to the subject, in the school of experience, and but very little by any other means, I am not prepared to answer such interrogations to my own satisfaction; probably much less to the advantage of inquirers. If any of your correspondents can give the desired information, it is obviously their duty to do it without delay. Especially, if this call should reach the ears of E. C. GENET, Esq., whose "Notes on the growth and manufacture of silk in the United States" have been read with deep interest, and great satisfaction, will he not attend to it, and make renewed efforts to instruct the many thousands, who now have it in serious contemplation to commence the culture of silk?

The cultivation of mulberry trees is the first thing, requiring the attention of those who are about to embark in this new and patriotic enterprise. It certainly presents important questions, which cannot be easily solved, without the lights of experience. Why did not Mr. Cobb, in his Manual, which was intended to be a guide to the blind, give more attention to this subject? And why have not other writers of experience done the same? Almost the only article to be found in the Manual, bearing materially on the subject now under consideration, is one which the compiler styles "Statistics of a mulberry orchard of two acres, by the late Andrew Parmentier, Esq. of New-York." It happens, unfortunately, that the article alluded to in its most essential part, is to me altogether unintelligible. By what mysterious mode of planting, 650 standard trees, standing twenty feet apart; and 250 more such trees, standing twelve feet apart, can be so located on two acres, is beyond my comprehension. Having indulged myself a little in speaking of Mr. Cobb's Manual in the language of complaint, it becomes me now, in the discharge of my duty to the highly respected compiler of that work, and to my fellow citizens also, to say that this little book is admirably adapted to the uses for which it was designed. It will in general serve as a sufficient guide to the inexperienced in the cultivation of Mulberry trees, in the breeding and nurturing of silk worms, and in the performance of the subsequent operations to the final accomplishment of the object. It is a little book and comes at a low price, viz: 37½ cents. Every cultivator of the mulberry tree should have it in his possession. It may be had of Thorburn and Son, New-York, and doubtless at the Agricultural book stores in Albany. Inquire for Cobb's Manual on the growth of Mulberry trees, and the culture of silk.

Returning from this digression to the subject proposed, that is, the manner of setting mulberry trees, I remark that so far as I am informed, it is the general practice in those parts of New-England where these trees have been cultivated to a large extent, to set them in orchards generally about twenty-five feet apart, in like manner as apple trees are usually set. We are informed that one man, the last season, expended $1500 in purchasing mulberry trees, and that he set them in an orchard of one hundred acres. Although this mode of setting seems to have gained the sanction of experience, and is generally adhered to in that section of the country, yet I am doubtful of its correctness, on the score either of convenience or economy. It is estimated that one acre planted with Mulberry trees in this form, will produce when the trees shall have attained their full growth, a sufficient quantity of foliage to feed 120,000 worms, which will produce forty pounds of spun silk, worth at a low estimate $200. This, to be sure, will be deriving great profit from the use of land. It will require ten acres of wheat, yielding twenty bushels an acre, and the wheat selling at one dollar a bushel, to bring the like sum; while the expense of growing the wheat crop, and preparing it for market, will be tenfold greater than that connected with the small mulberry establishment.

Productive as it seems land may be rendered by planting it with Mulberry trees in the orchard form, there is reason to believe that by adopting another mode of planting, it may be rendered vastly more productive. It is believed that, as a chief dependence, it will be better to cultivate Mulberry trees in the form of hedges; or otherwise to plant them so thick together that they may have the exclusive occupancy of the soil.—Happily, I am able to produce, in support of the theory here advanced, highly respectable authorities. 1st, I quote E. C. GENET, Esq. whose auspices I have already invoked. In an essay entitled "Notes on the growth and manufacture of silk in the United States," published in the New England Farmer, vol. 4, page 388, that gentleman says: "A small hedge that will occupy the twentieth part of an acre, being planted with bushes not more than three years old, will supply and accommodate 100,000 worms, the produce of which will be thirty pounds of raw drawn silk: and if the whole are to be planted in this way, the produce will be 600 pounds." It will be seen that according to this estimate, one acre of land is capable of producing a sufficient quantity of foliage for two millions of worms; that the produce in silk will be 600 pounds, and its value in money not less than $3,000. This is a great estimate: I can not vouch for its correctness. Although Mr. GENET undoubtedly understood the subject on which he wrote, yet it is possible, and perhaps not improbable that, in this particular, he made his estimate too high. Be this as it may, I claim him as good authority in support of that mode of planting Mulberry trees, which I am now recommending.

2. I quote Mr. D'HOMERGUE, who is a native of France, and acquainted with the modes of cultivation in that country. In a letter written by him, dated Washington, Feb. 23, 1831, and addressed to Hon ANDREW STEVENSON, then Speaker of the House of Representatives, we find the following passage: "In an acre of land there are 43,560 square feet; on which may be planted three thousand mulberry trees. These will yield at the age of seven years, 90,000 pounds of leaves, producing 7,500 pounds of cocoons. At twenty-five cents per pound, these cocoons will sell for $1,895." This letter was published in the Lowell Journal, and afterwards copied into the Genesee Farmer. See Gen. Farmer, vol. 1, page 331.

To the evidence already adduced in favor of cultivating the Mulberry in a dense form, I can add another small item, which has resulted from my own observation. The abundant foliage of my Mulberry nursery the last season, contributed not a little to confirm me in the belief, that there is a better way of planning Mulberry establishments, than to plant in the orchard form. This nursery contained at that time about 8,000 trees, which were then in their third years' growth. It still contains nearly that number. It surpassed the last season, in the exhibitions of abundant foliage, any thing of the kind that I have ever noticed in any other grove. About 3,000 worms received from it a supply of food. This made no perceptible impression upon the foliage. I believe this nursery might have sustained the last season, 60,000 worms or more.

There is another important consideration in favor of cultivating Mulberry trees in dense plantations, that is, by adopting this mode of culture, persons desiring to undertake the culture of silk, may prepare for profitable operations several years sooner, than if they are to wait for the growth of standard trees. All these things considered, it is believed the mode of cultivating Mulberry trees as here recommended, will in general be preferred. We will advert then to the suggestions of Mr. D'HOMERGUE. He says 3,000 trees may be planted on one acre. We will suppose a square acre is prepared for this use. The trees should be set in rows on a straight line.—The length of these rows either way, extending across the acre, will be two hundred and eight feet; on each of which may be planted one hundred and four trees, standing two feet from each other. The square acre will afford room for twenty-six such rows, to be formed on parallel lines eight feet apart. This number of rows will contain 2704 trees, if planted as aforesaid. For the better admission of the sun, the rows should extend north and south rather than east and west. I submit this on the model of a plan that may be worthy of adoption, and may be varied to suit the different tastes of individuals.

Although this plan of setting Mulberry trees, or other plans similar to it, will probably prevail, yet it will not be wise altogether to neglect the cultivation of Mulberry orchards. It is said the leaves of standard trees are better for silk worms in their last stages, than such as grow upon small bushes.

To satisfy inquisitiveness, which prevails to a great extent, I subjoin the following chatechetical illustrations.

Q. What is a cocoon?

A. A small ball of silk, in which the worm encloses itself, and there undergoes a metamorphosis, changing itself into a miller.

Q. How many cocoons are required to make a pound weight?

A. From two to four hundred, according to quality.

Q How many worms are required to make a pound of spun silk?

A. About 3000, sometimes more and sometimes less, according to quality and manner of attendance.

Q. How are the eggs, from which silk worms are hatched, obtained?

A A miller, eating through the cocoon, comes out and deposits its eggs on paper provided for that purpose.

Q. How many eggs will one miller lay?

A From three to five hundred.

Q. How are these eggs kept through the season, and the winter following?

A. They are rolled up in the paper on which they were deposited, and put away, either in a dry cellar, or in a tight drawer in some cool part of the house.

Q. How are these eggs hatched?

A. By exposure, at the proper time, to the warm atmosphere.

Q. What are the estimates of labor, incident to taking care of silk worms?

A. If the trees are near, and the leaves handy to gather, one active boy or girl at the age of fifteen, will be able to do all the work of taking care of 60,000 worms, till about ten days before the time of their winding; after that, the labor will be doubled, and for a short time more than doubled

Q. How much silk will these 60,000 worms make?

A. About twenty pounds.

Q. What length of time do silk worms require to perform their operations?

A. From four to six weeks, according to the weather and manner of attendance.

Q. What will silk be worth per pound?

A. Not less than five dollars, if it be good and well reeled.

Q. How are mulberry trees propagated?

A. By seed; also by cuttings, in the same manner as currant bushes are propagated.

Q. Where can trees be had that are now suitable for setting?

A. Of Judge Buel & Co. at the Albany Nursery near Albany: it is believed there is a nursery of white mulberries at Rochester—also the writer of this article can now supply at Marcellus, several thousand trees that have had the growth of three years: and a much greater number of such as have grown only one year.

Q. Where can Mulberry seed be obtained?

A. At the seed stores of Thorburn & Sons, either at New-York or Albany, [and at Rossiter & Knox's seed store, Rochester.]

Q. What will the seed cost?

A. Fifty cents per ounce.

Q. How many trees will one ounce of seed produce?

A. Five thousand, if the seed be good.

Q. What is the process of cultivating mulberry nurseries?

A. Let the ground be well prepared—about the middle of May sow the seed in rows as onion seed is sown, and cover it about an inch deep; the rows may be eigeteen inches apart, if the trees are intended to be taken up and transplanted at the age of one year; otherwise, they should be three feet apart.

Q. May not Mulberry trees be cultivated to advantage by the sides of roads, and on the borders of fields by the fences?

A. Yes; but this will not be done to any considerable extent, because the young trees, without great expense in protecting them, will be destroyed by cattle and sheep.

The above is respectfully submitted.

DAN BRADLEY.

March 10th, 1832.

WEBSTER AND MURRAY.

FOR THE GENESEE FARMER.

I have long held in veneration, the names of LINDLEY MURRAY and NOAH WEBSTER, for the great respectability of their characters, and for the lustre they have shed on American Literature; but I have never seen, nor corresponded, with either; neither have I the slightest knowledge that I have ever seen one of their personal friends. If I am biased therefore, it is not by the partialities of friendship, but by a common sense of justice.

I have not imputed to Noah Webster any unworthy purpose. I have not made any reference whatever, to his motives. I have supposed that his *dislike* to the late Lindley Murray, arose from a misconception of circumstances. Murray made what he called a "few extracts" from Webster's Grammar, for which he made an acknowledgement so full that he apologized to one of his own friends in 1816, lest they should "think [he] had said *more than was necessary* in the note (pag 73 sixth American edition) respecting the passages from Webster." The latter however, instead of being satisfied, charges him with "plagiarism" and "immorality," either for not saying *more*, or for not naming all the little passages. But I intend hereafter to resume this subject.

In a respectable publication at Philadelphia in 1829, an "original letter" from Lindley Murray, written in the year 1811, to one of the firm of Collins & Perkins, (his American publishers) was given. From this it appears that the *dissatisfaction* of Noah Webster, is of long standing. This letter has a bearing on the subject before us; and if I may venture to judge, there are the strongest marks of conscious rectitude in every paragraph:

"I am a little surprised, says Murray [to learn] that 'Noah Webster has called at your store, and threatened to commence a prosecution against Collins & Perkins for infringing on his copy right in reprinting Murray's *octavo* Grammar, he claiming as his own, the system of punctuation, and the list of words derived from the Saxon language, which list is given at pages 121, 122, of your edition.'

"You need not be under the least apprehension from a suit of this nature, as *it would be utterly destitute of even the shadow of a foundation.* My system of punctuation was first published in the year 1795, and with a few improvements, is the same that appears in the *octavo* Grammar. *So far from having taken this system from any writings of Noah Webster, I can assure you that I have never seen any thing of the kind written by him;* and I do not know even at the present time, what he has published on the subject. If he thought I had infringed his right in this point, *how has it happened that in the course of* 15 *or* 16 *years, he never before made any complaint*, or threatened a prosecution against the American printers of my Grammar.

'With regard to the list of words derived from the Saxon language, *the charge is equally unfounded –I never read his Saxon derivations.* Mine were taken from Horn Tooke's system; and I expressly say so in the two paragraphs which precede and follow the list of derivations.

"*Both these charges are so entirely groundless*, that I am persuaded he was not in earnest when he talked about prosecuting you. *He knows better than to incur the expenses which such a suit would assuredly fix upon him.*

"In my account of the definite and indefinite tenses, (at pp. 69, 70 of your edition) I have given two pages which are chiefly (not wholly) taken from Webster. But *I have acknowledged whence I had them*, and this is a mark of respect. He does not therefore, nor can he, complain of this quotation. The greater part of an English Grammar must necessarily be a compilation; originality belongs to a small portion of it. *This I have acknowledged, and I trust this acknowledgment will protect me from all attacks grounded on any supposed unjust or irregular assumptions.*"

Again, I have to express my deep regret for the course pursued by Noah Webster. If he had appealed to the laws of his country against the American publishers of that Grammar, the case might have been long ago investigated, decided, and settled; and the evening of his useful life might have passed on serenely to its close. But he has preferred *his own record of alleged grievances* to the verdict of a jury. If those petty differences however, were too unimportant for a court of law, surely they were too unimportant for a place in the American Dictionary, that noble and imperishable monument of his learning and genius. Who would inscribe such matters on an obelisk?

A FARMER.

☞From *Professor Silliman's Travels in England*, &c., I extract one paragraph relative to Lindley Murray; and nothing but a just sense of my encroachment on the columns of an agricultural paper, restrains me from presenting the whole of that interesting account. It is taken from vol. 2, page 258:

"Towards evening I went on horse-back to Holdgate, a village in the vicinity of York, for the purpose of seeing *a countryman of ours*, who is well known to the world both by his writings and by *the excellence of his character*. I carried an introductory letter which procured me the kindest reception possible, and all unnecessary ceremony being waved, I was seated at once between Mr. and Mrs. M——. Mr. M——, I need not inform you, enjoys a distinguished literary reputation; and this, although well deserved, is by no means the most enviable distinction of his character, for *he is an eminently good man.*"

FARMERS' WORK FOR MARCH.

Take opportunity before the hurrying season comes on, to select and purchase such neat cattle, sheep, pigs, seed-wheat, potatoes for planting, &c. as will be likely to prove most valuable on your farm, having in mind the following maxim, viz: Choose those animals and vegetables to propagate from, that possess the qualities which you wish might distinguish their offspring in the greatest perfection. Farmers are too apt to sell off their best stock to the butchers, and keep the poorest to breed from; and to gather their seeds from vegetables, which were permitted to go to seed merely because they were worth but little for consumption. But we believe that more pains have been taken to improve their breeds of animals among those who are men of skill and science in the arts of cultivation, than to improve their sorts of vegetables. Still it is of quite as much importance to introduce on a farm or in a garden, the best kinds of plants, seeds, roots, &c. as it is to keep the best breeds of animals.

Look to your water courses, clear out obstructions, and change their directions if necessary, so as to distribute their contents to the best advantage over your mowing lands. By a little attention in this particular, you may oftentimes derive great advantage from the wash of the highway, barnyard, and other receptacles of manure.

PRUNING FRUIT TREES.

According to the opinion of some able and experienced cultivators, it is quite time

to trim your trees of all superfluous shoots, branches, &c But care should be taken not to cut away too many of the branches of a tree at a time. Mr. Wheeler's article, page 269, in this day's paper, appears to be very correct and judicious on this topic. His opinions are coincident with those of a writer in the Genesee Farmer, who states. "It has been my practice for several years past to prune in autumn and winter, applying a coat of boiled tar and brick dust, or of common paint immediately to the naked wood; and I have been led to believe that no time is more favorable."

FENCES

Should be surveyed with a critical eye, and all defects rectified before your cattle take advantage of any thing out of joint in that department of the cultivator's province. "A stitch in time saves nine," and a little seasonable fence making or mending may save more loss and trouble than could be calculated by the most able Professor of Mathematics that ever made a figure. Train your domestic animals in the spring in the way they should go, and in summer and autumn they will not depart from it. But if they are once suffered to commit *Trespasses on the Freehold*, trying to correct their waywardness will be "*taking the bull by the horns.*"

Post and rail fences are, probably, more used in New-England than any other; and are, perhaps, in many cases justly preferred. Mr. Preston, of Stockport, Penn. recommends to set posts with the top part in the ground; and asserts, that they will, while in that position, last three or four times as long as when they are set with the butt ends down. He also advises, on making post and rail fences always place the rails with the heart side up. Some farmers cut their posts so long, and mortise them in such a manner, that when the lower ends have become rotten, they can turn them upside down, and it is said that they will last nearly as long again, when managed in that manner.

OATS

Cannot be sown too early in the spring, after the ground is thawed and become dry enough for sowing. Three bushels of seed, according to Deane, is the usual quantity sown on an acre. The quantity will be rather more than enough on rich soil; if the soil be poor the quantity of seed should be greater.

Oats have strong piercing roots and are called hearty feeders, so that they can find their nourishment in stiff soils; and for the same reason they sometimes produce great crops, when sown after one ploughing.—Some recommend cross ploughing and harrowing for oats, but when sward land is well turned over, the sod ought not to be disturbed until at least two crops have been taken from the field. Gypsum is said to be an excellent manure for oats.

To Correspondents.—The "Notes" sent by Ulmus, by private conveyance, were duly received, and their publication has been delayed only to make room for matters of more immediate interest. Several other communications have been received, which shall have a place soon.

Anchor Ice.—We have received four communications in answer to an extract on this subject on page 72, the two first received are given in this paper, and the others shall appear.

NEW BOARDING SCHOOL FOR GIRLS.

Talcot's Corners, Poplar Ridge, Venice, Cayuga County.

THIS situation is pleasant and salubrious. It is on the stage road between Auburn and Ithaca, 18 miles from the former, 22 miles from the latter, and 2 miles from Northville.

Our terms for board and tuition, including washing and lodging, are 27 dollars a quarter. Payments to be made quarterly in advance, and towels provided by the pupils The tuition will comprise the common branches of an English Education, together with History, Mathematics, and the elements of Natural Philosophy, Chemistry, Mineralogy and Botany. The French language, Ornamental Needle work, Bead work, painting and japanning, and printing on velvet, will also be taught on moderate terms. It is expected that the school will begin about the tenth of fifth mo. next; and from our long experience in this line of business, we hope for a share of public patronage.

References may be made to Judge Richardson of Auburn, David Thomas, near Aurora, or Isaac Jacobs, of Venice.

WILLIAM TRIMBLE,
3 mo. 10, 1832. SARAH TRIMBLE.

ROSES, DAHLIAS, STRAWBERRIES, & QUICKS.

THE Proprietors of the Albany Nursery have printed a classification of 140 of their finest roses, according to color, to enable purchasers to select a variety with certainty and economy, with characters denoting the size of the flower, habit, and price. This may be seen at Thorburn & Sons seed store, and at 550 Broadway.

They have imported and propagated many varieties of the finest double Dahlias, which will be in flower in all August and September. They offer, from this date forward, plants of the Methven Strawberry, at $2 50 per hundred, 47 of those berries have weighed a pound, and the largest measure 4½ inches round. They have also at $5 per thousand, 50,000 quicks of the honey locust (*Gleditschia triacanthos*) for hedges, two years old, and fit for transplanting.

☞Orders may be sent by mail, or left with L. Tucker, at the office of the Genesee Farmer, Rochester. BUEL & WILSON,

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ROCHESTER AGENCY.

Linnæan Botanic Garden and Nurseries,
Flushing—near New-York.

WM. PRINCE & SONS, proprietors, announce that the great exertions made in their establishment, which now covers nearly 50 acres, *completely filled* with the choicest Trees, Shrubs and Plants, enables them to offer the various kinds at the *reduced prices* stated in their new catalogues, which will be sent to any person who may apply for them. The size and excellence of the trees exceeds all former periods; and the most scrupulous attention has been devoted to their accuracy, which is invariably an object of their personal attention. To nurseries they will allow a liberal discount and convenient credit.—All letters desiring information will be replied to by the first mail. As many persons are agents for different nurseries, it is requested that orders intended for us be particularly specified. Every Invoice sent has a *printed heading, and our signature,* and such proof of origin must be insisted on, as we take upon ourselves no responsibility unless such an ivoice can be produced.

Their treatise on the Vine, describes 280 kinds of grapes and their culture. Their treatise on Horticulture contains descriptions of a great variety of trees and plants, and directions for cultivating them;—and their Pomological *Manual*, just published, contains full descriptions of above 600 varieties of Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Almonds, &c. besides other fruits, so that all persons can make their selections, *with a knowledge of their qualities.*

Persons in the vicinity of Rochester, can be supplied with any articles from our establishment, or either of the above mentioned books, by application to our agents, Rossiter & Knox, Buffalo street, Rochester.

mar 3-arf WM. PRINCE & SONS.

GRAPE VINES.

MR. ALPHONSE LOUBAT having considerably enlarged his Vineyard, on Long Island, where he now has in full cultivation, *thirty five acres of ground*, containing 72,000 grape vine roots, (of which 50,000 are to form his vineyard stock, and 22,000 to be delivered to his subscribers in October next;) and having also the peculiar advantage of being enabled to procure the best species of roots from his Father's extensive Vineyards and Nurseries, in the districts of *Bordelais, Clesac*, and *Buzet*, departments of Gironde and Lot Garonne, *in France*, (5° N. lat.)—proposes to the numerous friends to the cultivation of the Grape Vine in the United States, a subscription which is now open.

Mr A. L. will engage to furnish subscribers with their grape vine roots before the *first of March next*, and forward them, free of expense, to the different cities where subscription lists shall have been opened. The roots will be three years old, and will produce considerable fruit the second year from the time of their being planted.—They will be carefully classed and packed in boxes, with some of the original soil in which they have been raised, which will greatly facilitate the thriving of the roots when transplanted.

Orders will be punctually attended to; the subscribers designating the quantities and species of the grape vine roots they wish to have. They will engage to pay for 1000 roots or more, at the rate of 12½ cents for each root; for less than 1000 at the rate of 15 cents; and 25 cents per root for less than 50. *Roots only two years old*, shall be paid for at the rate of 9 cents each, for 1000 or more; 12½ cents for less than 1000; and 18 cents for less than 50 roots.

Payment to be made on delivery of the roots.—Letters not received unless post paid.

Mr A. Loubat's book on the culture of the grape vine, and on the making of wine, may be found at the principal booksellers of the United States; and his agents will furnish them (*gratis*) to subscribers.

The subscribers having been appointed agents for Mr. Loubat, will receive orders at their seed store, No. 3, Buffalo street, Rochester.

mar 7 ROSSITER & KNOX.

A. Loubat has selected the following species of Grape Vines, as best adapted for the purposes mentioned.

Table Grapes, or for making Strong Wine.

WHITE.—1. Alicante. 2. Robin Eyes, with big clusters; or Œilde Tour, grosgrain. 3. Robin Eyes, Melting, (*or fondant.*) 4. Sweet Guillant. 5. Muscat. 6 Muscat Frontignan. 7. Muscadelle, from the river *Lot*. 8. Malvoisie. 9. Tokay.—10. Syrian. 11. Constantia. 12. Malaga. 13. Meillers.

RED.—14. Large Muscat. 15. Malvoisie. 16. Red Foot, (Pied Rouge.) 17. Black Hambourg. 18. Constantia.

For Wine.

WHITE.—19. Auvergnat. 20. Blanquette. 21. Doucinelle. 22. Plant de Dame. 23. Olivette. 24. Doucette. 25. Plant de Reine. 26. Burgundia. 27. Morillon. 28. Madere. 29. Bourgelas. 30. Picardan. 31. Chaloosse. 32. Panse.

RED.—33. Claret. 34. Auvergnat. 35. St. Jean. 36. Jacobin. 37. Meunier. 38. Pineau. 39, Printanier. 40. Teinturier. 41. Bourgignon. 42 Bouteillant. 43. Suisse. 44. St. Antoine. 45. Gamet Noir.

For the Table Only.

WHITE.—46. Chasselas, (from Fontainebleau.) 47. Do. Golden. 48. Do. Cracking. 49. Do. Musk. 50. Muscat Lazarde. 51. Muscat Small Berries. 52. Do. (d'Alexandria.) 53 Do. (from Jura.) 54. Sauvignon.

RED.—55. Chasselas 56. Chasselas Violet. 57. Muscat, Rouge. 58. Muskat, Violet. 59. Muscat Grey. 60. Damas Violet. 61. Damas of Poquet. 62. Early Magdalen.

FRUIT TREES.

PERSONS designing to purchase or order Fruit Trees, Forest Trees, Shrubbery, &c. this Spring, are requested to hand in their orders by the 1st of April.

mar 14 ROSSITER & KNOX.

From the New-England Farmer.

DWARFING TREES.

The art of dwarfing trees, consists in grafting or budding the desired fruit, upon dwarf varieties of the same genera. Thus the apple is dwarfed by putting it on the paradise stock, and partially by working it on the wild crab; the pear is dwarfed by working it on the quince, or the hawthorn, or wild thorn; the cherry, by grafting on a dwarf variety termed the beach or sand cherry. Fruit trees are also rendered comparatively dwarf and early bearers, by permitting the first side shoots to remain at proper distances to become bearing wood. By annually cutting off the lower branches to produce standards or high tops, we proportionally delay the season of fruiting. Van Mons, in his successful experiments in producing new varieties of the pear, left the first branches to grow, and thus often obtained fruit in from four to six years from the seed. In this way dwarf plums, peaches and nectarines, are produced on the stock of the muscle plum. Whatever retards the growth of wood, in a tree of bearing age, induces the production of fruit; and a tree seldom makes much new wood while sustaining a heavy crop of fruit. The precocity of dwarfs is owing to the diminished circulation of sap, consequent upon the sap vessels of the stock being more limited or contracted than those of the graft; or by the maturity of the branches which are suffered to remain near the ground.

It is proper to remark, that *all* pears will not take or do well upon the quince. The words pear, pear and quince, in the table you published, although not understood, and sent to you by mistake, indicate the stock upon which the kinds may be worked to advantage. Those with *quince*, in the column of ripening, produce better on the quince than on the pear. The breaking pears are generally best on the the pear stock. I have become so sensible of the advantage of dwarfs for early bearing, that we have sent an order to France for three or four hundred of the best varieties of the pear upon the quince, to supply customers to our nursery. It should also be borne in mind, that in dwarfs, the scion overgrows the stock; and that hence it is necessary to graft near the surface of the ground, or under it. I have several pears now growing upon the hawthorn, which were grafted in 1827; but they have not produced, nor do they promise much. Dwarfs upon the quince should be planted in a quince soil; that is, one that is moist, and rather stiff than sandy. J. B.

Albany Nursery, Feb. 21, 1832.

MANURES.

Manures are to the vegetable, what grain and forage are to the animal products of the farm—the food which sustains and brings them to perfection. I do not see, therefore, why Swift's commendation will not apply as well to him, who increases the food of vegetables, as to him who increases the food of animals, by causing a new blade of grass to grow. Without, however, meaning to raise a question upon this point, I am anxious to communicate to your readers, one of the best contrivances for saving manure, and *all* the manure, that I have any where witnessed. I saw it at the farm of Dr. Hosack, at Hyde Park. The Doctor is nice in every thing he undertakes; and my only fear is, that farmers will be deterred from imitating his example, from a fear that they cannot equal it.

The Doctor's cattle yard is nearly a square, surrounded by an extensive barn on the north, cattle sheds on the east and west, the two latter terminating on the south in two more elevated structures, which serve for farm carriages, implements and work-shops. The whole has a gentle slope to the centre, which is puddled and gravelled so as to become impervious and firm. Over this he has a cheap octagon cover erected, about forty-five feet in diameter, supported by the central and exterior parts and covered with boards. Poles extending under this roof, constitute a comfortable roost for his fowls. This centre forms a reservoir, protected from the storms and the sun, for all the manure of the yard and stables, including urine and hen-dung into which it is daily collected when practicable. His stables are double, that is, they admit two rows of cattle, their heads turned from each other; they are paved and sloped to the centre, from whence a paved gutter leads to the stercorary, or central deposit. At a proper elevation in the stercorary, a grate is fixed, opening into a drain, into which the liquids of the stercorary pass, and by which they are conducted to a large tank or cistern in the kitchen garden, which is lower than the cattle yards. This cistern is furnished with a pump, by which this liquid manure is afterwards raised into spouts which conduct it through the garden, or it is taken from the cistern to other grounds. In this way, the Doctor has increased, probably one third, the quantity of his vegetable food. J. B.

Albany Nursery. Feb. 25, 1832.—*Ib.*

HORSE RADISH—*Cochlearia armoracea.*

This is a perennial plant, which is worthy a place in every garden. The young leaves are used for greens in the spring, and the roots, scraped into shreds or grated, are very fine with boiled as well as roast meats, in winter and spring, and it is believed are, in moderate quantities, conducive to health.

For the ordinary uses of a family, no directions are necessary for the cultivation of this plant; for it will grow without care, in any garden soil; and all that is requisite is to plant the crowns or pieces of the root, where you wish them to grow, and keep down the weeds. But as it forms a profitable crop for the market garden, it will not be amiss to suggest a proper method of culture.

The soil should be a deep, rich, moist loam, but neither wet nor stiff. In my sand soil, it grows well on the north side of the garden fence, and in the shade of trees, where, however, the ground is rich and loose.

The preparation of the ground consists in digging, or otherwise loosening, and mixing it with a good dressing of dung, to the depth of two feet.

The planting consists in placing the sets, twelve inches apart, in the prepared ground, ten or twelve inches below the surface. If too low, the sets often will not grow, or grow but feebly; if near the surface, the roots become too fibrous. The *sets* are the crown of an old plant, two or three inches long, slit longitudinally into slips of the size of one's thumb. This may be done either in the autumn or the spring. My practice is to plant the sets when I take up the roots for use, and in the same ground.

The after culture consists in keeping the ground free from weeds.

The crop is taken when the plant has grown two seasons. The roots intended for the winter market, should be taken up in November and packed in earth, either in a cellar or in a pit, that they may be had at all times. Those intended for the spring market may be taken up as they are wanted. Families who are fond of horse radish, generally lay in a stock for winter use. J. B.

THE LIMA BEAN—*Phaseolus limensis,*

Is unquestionably the best bean, if not the best of the legumes, that is grown in our gardens, with the further recommendation that it may be kept for the table, in tolerable perfection during the whole year. As it is rather tender for our climate, considerable care is requisite to grow it with success.

The soil should be rich, mellow, warm, and rather dry. *The situation* open and fully exposed to the sun. *The time of planting*, May, when the ground and weather are sufficiently warm to insure a quick germination of the seed, as this is very liable to rot in a cold or moist temperature. *The manner of planting* may be either that of ordinary pole beans, in hills two and a half to three feet deep, or as follows: Dig holes three feet in circumference, and eighteen inches deep, and put into each the best part of a barrow load of dung or compost; cover this with six or eight inches of mold, plant the beans near the rim, and insert four or five poles, retaining the branches round the hill. If either way, it is best to insert the poles when the seed is planted. Cover the seed half an inch with mold, and if the weather is dry when you plant, an occasional watering will be serviceable. The seed may be soaked a few hours, with advantage, in tepid water or milk and water, previous to planting.

The product is very abundant; though the entire crop seldom comes to maturity in ordinary situations. To make the most of it, however, it has been my practice, on the first indications of frost, to pick off all that have acquired a mature size, and to have them shelled and dried. I generally reserve this bean for winter use, and sixty hills have yielded four and five pecks of shelled beans. Those that are ripe are separated for seed, and to be used last. They lose very little of their richness or flavor; and both the ripe and unripe may be cooked in the same way that they are when taken from the vines, taking the precaution to put them in cold water over night previous to cooking. They are particularly fine, with dried green corn, in the Indian dish which we denominate *succotash.*

There are two varieties of this bean, which differ in size nearly one half, of like habits, and both very abundant bearers.

Albany Nursery.—Ib. J. B.

GARDEN TOOLS,

ROSSITER & Knox, No. 3, Buffalo-street, Rochester, have on hand a great variety of cast steel *Garden Tools*, which they can warrant of the first quality: among them are

Shovels, Garden	Pruning Saws
Spades, "	" German Hooked,
" Childrens'	" Double Teeth
Trowels, 3 sizes	Iron Rakes, (sizes)
Hoes, from 3 to 8 inch	Rogers' Knives
Pushing Hoes	Common "
Draw Dutch Hoes	Budding "
Garden Forks,	Sheathe "

Also,

Bell Glasses, Garden Glasses, Hyacynth Glasses, Flower Pots, Hedge Hogs, for Crocus; Bird Fountains, &c. &c.

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